Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

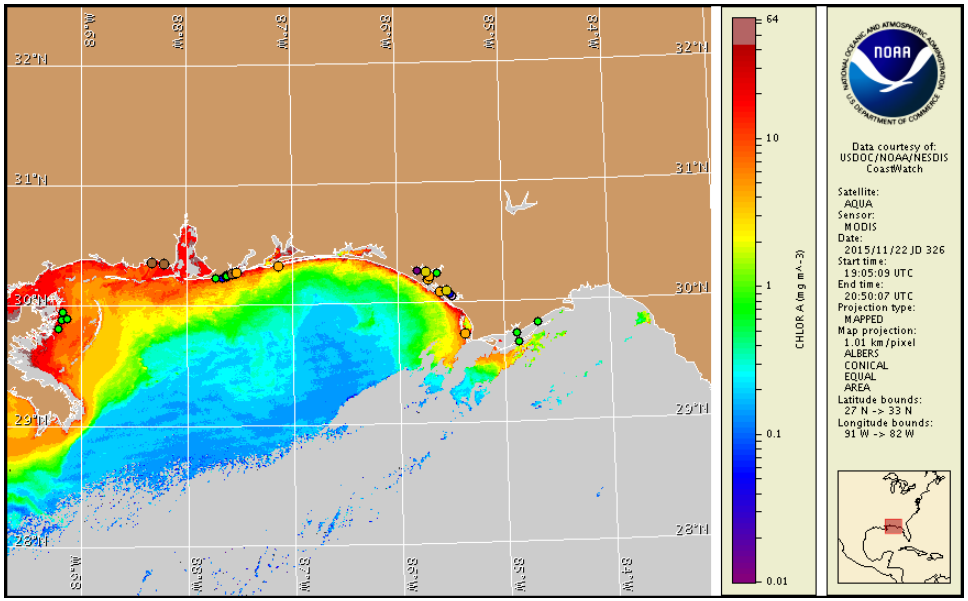
Monday, 23 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 19, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 13 to 20: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore Mobile and Baldwin counties in Alabama and portions of northwest Florida from Escambia to Gulf counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for alongshore Alabama and northwest Florida Monday, November 23 to Wednesday, November 25 is listed below:

County Region: Forecast (Duration)
Mobile County: Low (M-W)
Baldwin County: Very Low (M-W)
Baldwin County, bay regions-Perdido Bay area Moderate (M-Tu), High (W)
Escambia County: Very Low (M-W)
Santa Rosa County: Very Low (M)
Okaloosa County: Very Low (M-W)
Okaloosa County, bay regions: Low (M-W)
Walton County: Very Low (M-W)
Bay County: Very Low (M-W)
Bay County, bay regions: Moderate (M-W)
Gulf County: Very Low (M-W)
Gulf County, west bay regions-St. Joseph Bay area: Moderate (M-Tu), High (W)
All Other NWFL County Regions: None expected (M-W)
SWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#swfl

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Respiratory irritation was reported in Okaloosa County.

Analysis

Due to the upcoming federal holiday, the next bulletin will be issued on Wednesday, November 25.

Recent water samples collected from Alabama and northwest Florida continued to indicate the presence of *Karenia brevis* alongshore from Mobile County, Alabama to Gulf County, Florida.

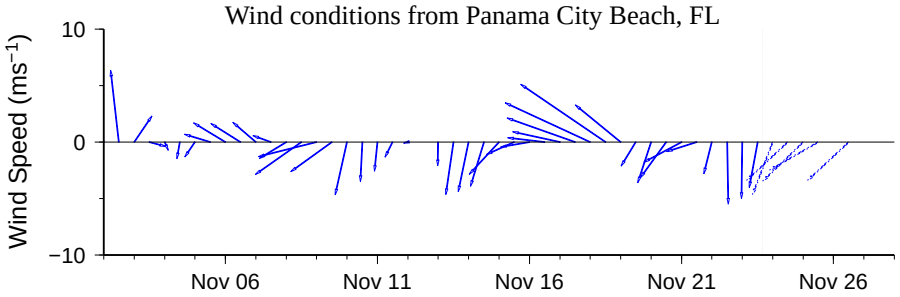
In northwest Florida, samples confirmed that *K. brevis* concentrations were 'medium' in St Joseph Bay of Gulf County (FWRI; 11/18). In Louisiana, sampling alongshore Jefferson, Plaquemines, and St. Bernard parishes indicated *K. brevis* was not present (FDA; 11/19). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus. Respiratory irritation was reported in Okaloosa County (MML; 11/21).

In recent ensemble imagery (MODIS Aqua, 11/22), patches of elevated to very high chlorophyll (2 to >20 μg/L) with the optical characteristics of *K. brevis* are visible along- and offshore from Harrison County, Mississippi to Gulf County, Florida. Recent sampling

indicates *K. brevis* concentrations only extend as far west as Mobile County, Alabama. Additional sampling alongshore and in the bay regions of Harrison and Jackson counties, in Mississippi, is recommended.

Winds forecast Monday through Wednesday may promote the continued westward transport of *K. brevis* concentrations in Alabama and northwest Florida and may include the transport of *K. brevis* into Mississippi.

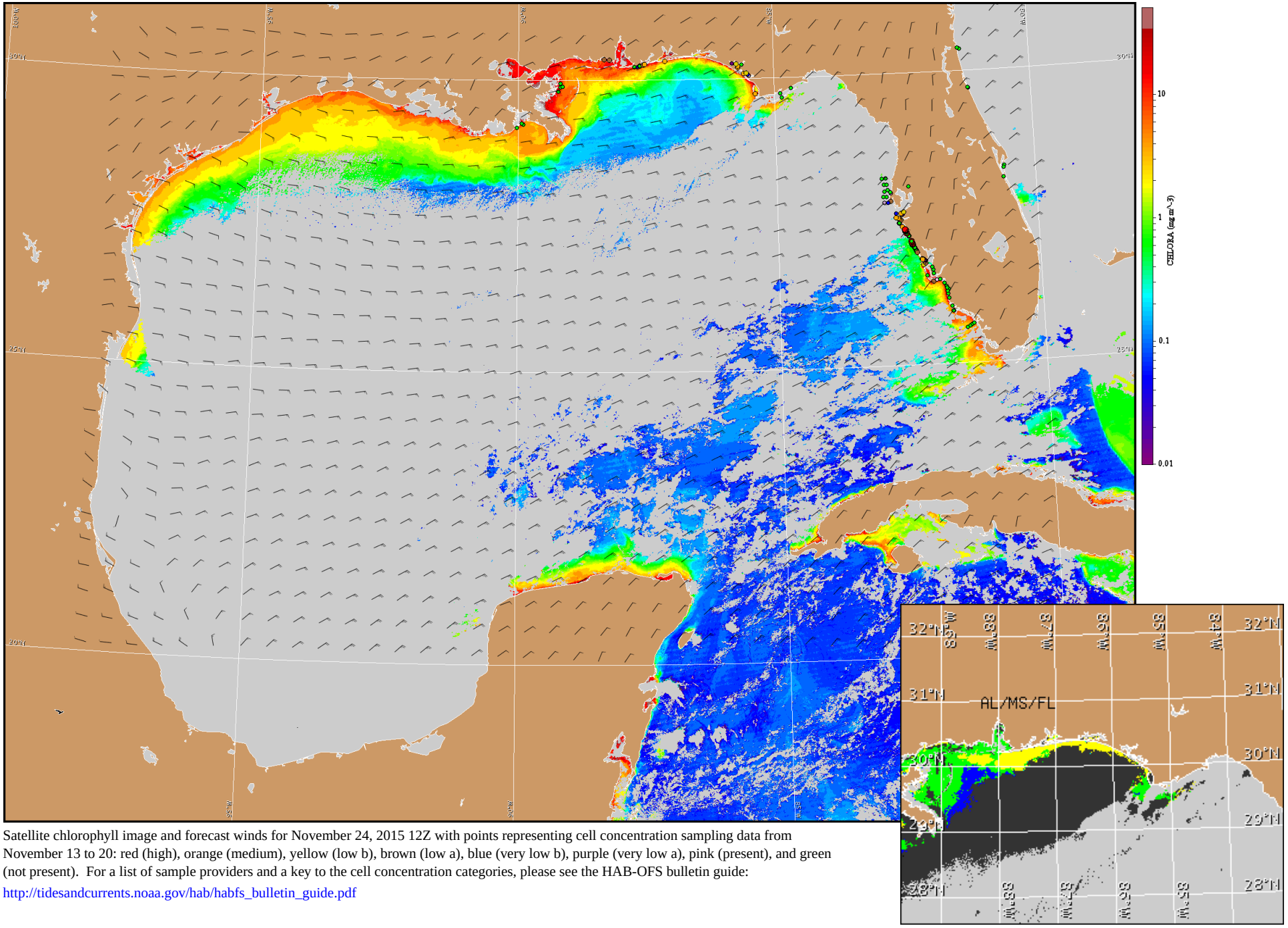
Yang, Davis



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Escambia to Taylor counties: Northeast winds (15-20kn, 8-10m/s) Monday and Tuesday. East winds (20-25kn, 10-13m/s) Tuesday night through Wednesday.



Satellite chlorophyll image and forecast winds for November 24, 2015 12Z with points representing cell concentration sampling data from November 13 to 20: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).